

REMARKS

Claims 1, 3-5, 7-13 and 15 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. The Examiner has proposed a number of changes to Claims 1, 5, 8, 9, and 11 to conform these claims to the "first waveform" (adult) and "second waveform" (child) of independent Claim 16. The Examiner's suggestions have all been adopted in the above amendment. One series of rejections to Claims 8-9 was designed to clarify between adult/child waveforms and time-sequential waveforms. This has been handled by identifying the time-sequential waveforms as a "previous" waveform and a "further" waveform. It is therefore respectfully submitted that Claims 1, 3-5, 7-13 and 15 are now clear and definite.

Claim 16 was rejected under 35 U.S.C. §102(e) as being anticipated by US Pat. 6,125,298 (Olson et al.). Claim 16 describes a method comprising the steps of coupling a patient to an energy source via a universal electrode suitable for use upon both adults and children; determining whether the patient is an adult or a child; electronically determining whether the patient requires defibrillation; delivering a first electrical waveform characterized by an energy level appropriate for an adult in the event that the patient is an adult; and delivering a second electrical waveform characterized by an energy level appropriate for a child in the event that the patient is a child. An embodiment of the present invention advantageously enables a defibrillator and electrode set to be used with either adults or children, thereby enabling its safe and effective use with first responders. Olson et al. describe various defibrillator electrodes which are specific to adults and pediatrics. The electrode sets and defibrillator sets 300 in Figs. 6-9 are specific to pediatrics as the Olson et al. patent states. These pediatric electrodes are characterized by either an energy reducer or shunt 304 or a coding device 405,408. The electrodes shown in Figs. 3-5 are adult electrodes containing no energy reducer or shunt 304 or coding device. Consequently Olson et al. do not show or suggest the use of a universal electrode suitable for use upon both adults and children. In an embodiment of the present invention which employs a universal electrode suitable for both adults and children, it is important that a determination be made as to whether the patient is an adult or a child. Thus, this combination of steps is an important combination which is not shown or recognized by Olson et al. Furthermore, an embodiment of Claim 16 will deliver one waveform when the patient is an adult, and another when the patient is a child. Contrary to this approach, Olson et al. attempt to deliver the same waveform from the AED regardless of whether the patient is an adult or child, relying on the energy

reducer to shunt or convert the waveform to one appropriate to a child, or upon the inductance change caused by the reduced size of specialized pediatric electrodes in the coding situation. Accordingly, for all of these reasons it is respectfully submitted that Olson et al. cannot anticipate Claim 16.

Claims 1, 5, 16 and 18 were rejected under 35 U.S.C. §102(e) as being anticipated by US Pat. 6,134,468 (Morgan et al.) Morgan et al. use an adult electrode in their illustration of Fig. 2 but immediately teach away from such use by stating that those skilled in the art will appreciate that differently sized electrodes may be used for pediatrics (col. 4, lines 46-49). In col. 5 lines 25-27 they describe their invention as using "a pediatric-specific electrode unit." And in the example where a determination is made as to whether the patient is an adult or child, which is done by measuring the patient's height with a cable 58, Morgan et al. say that the standard adult electrodes should be used if the height of the patient exceeds the cable length (col. 6, lines 7-11). Thus Morgan et al. make clear that a pediatric-specific or adult-specific electrodes are to be employed in an embodiment of their invention. At best, their disclosure indicates that if nothing else is available, an adult electrode can be used with a child. This is not a teaching of a universal electrode. Consequently it is respectfully submitted that there is no universal electrode suitable for both adults and children in Morgan et al. Furthermore, in the last example where Morgan et al. determine by measurement whether the patient is to be treated as an adult or child, they then use this information to pick either pediatric or adult electrodes. This is distinctly different than the claimed invention where the combination of a universal electrode and a determination of whether the patient is an adult or child, important when using universal electrodes, are employed. The adult/child determination then leads to delivery of either an adult or child-compatible waveform, as appropriate to the patient, not the type of electrode used. Furthermore, Morgan et al. rely upon an energy reduction unit, similar to Olson et al.'s energy reducer, or an ID chip similar to Olson et al.'s coding memory chip. And like Olson et al., Morgan et al. use an energy reduction unit to moderate a waveform designed for adults so as to be suitable for children. For all of these reasons it is respectfully submitted that Claim 16 and its dependent Claims 1, 5, and 18 are not anticipated by Morgan et al.

Claims 1, 5, 7, 8, 9, 11, 12, 13, 17 and 18 were rejected under 35 U.S.C. §102(e) or under 35 U.S.C. §103(a) as obvious over Olsen et al. The Examiner points to column 9 of Olson et al. where increasing energy level shocks are discussed. This is done with a pediatric electrode set with a shunt resistor built

into the electrode wires. This is a distinctly pediatric electrode set and not a universal electrode set suitable for both adults and children. No determination of whether the patient is an adult or child is done because the defibrillator always delivers an adult waveform, leaving it to the shunt resistor to attenuate the pulse. Consequently there is nothing in this teaching which would render Claim 16 unpatentable. Since all of Claims 1, 5, 7, 8, 9, 11, 12, 13, 17 and 18 ultimately depend from Claim 16, it is respectfully submitted that these claims are patentable by reason of this dependency.

The Examiner's presumption that the subject matter of the various claims was at all times commonly owned is correct.

Claim 7 was rejected under 35 U.S.C. §102(e) as being anticipated by Morgan et al. and Claims 7-9, 11-13 and 17 were rejected under 35 U.S.C. §103(a) as unpatentable over Morgan et al. However Morgan et al. do not show or suggest the use of a universal electrode set suitable for both adults and patients. In Morgan et al. the determination of whether the patient is an adult or child, done by a height measurement, is used to select an adult or pediatric electrode. In the present invention the patient determination, done by setting an adult/pediatric mode switch 44, is used to select delivery of an appropriate adult or pediatric waveform. Thus, Morgan et al. cannot render Claim 16 unpatentable, from which Claims 7-9, 11-13 and 17 depend. It is respectfully submitted that Claim 7-9, 11-13 and 17 are patentable over Morgan et al. by reason of this dependency.

Claims 3, 4, 10 and 15 were rejected under 35 U.S.C. §102(e) as anticipated by Olson et al. or Morgan et al., or under 35 U.S.C. §103(a) as unpatentable in view of these patents. However Olson et al. do not use universal electrodes but either an adult electrode shown in Figs. 3-5 or a distinctly pediatric electrode characterized by an energy reducer or shunt resistor or coding element or memory chip as shown in Figs. 6-10. Similarly, Morgan et al. tout their pediatric-specific electrode unit. Thus there is no combination of a universal electrode suitable for both adults and children in combination with a determination of whether the patient is an adult or child, leading to the selection of delivery of an appropriate adult or pediatric waveform. Since these patents cannot render Claim 16 unpatentable, it is respectfully submitted that Claims 3, 4, 10 and 15 are patentable over these two patents by reason of their dependency.

The prior art made of record and not relied upon has been reviewed and is not believed to affect the patentability of the claims discussed above.

In view of the foregoing amendments and remarks, it is respectfully submitted that Claims 1, 3-5, 7-13 and 15 are clear and distinct and that Claims 1, 3-5, 7-13 and 15-18 are not

anticipated by or obvious in view of Olson et al. or Morgan et al. Accordingly it is respectfully requested that the reject of these claims under 35 U.S.C. §§102(e), 103(a) and 112 be withdrawn.

In light of the foregoing amendment and remarks, it is respectfully submitted that this application is now in condition for allowance. Favorable reconsideration is respectfully requested.

Respectfully submitted,

THOMAS D. LYSTER ET AL.

By: W. Brinton Yorks, Jr.
W. Brinton Yorks, Jr.
Reg. No. 28,923

Philips Electronics
22100 Bothell Everett Highway
P.O. Box 3003
Bothell, WA 98041-3003
(425) 487-7152
June 30, 2004